

Washington Park Arboretum Master Plan



January 2001

Note:

Some pages in this document have been purposefully skipped so that this document will copy correctly when duplexed.

Fact Sheet

Nature and Location of Proposal

The Arboretum and Botanical Garden Committee (ABGC) proposes that the Seattle City Council and subsequently the University of Washington Board of Regents approve an updated master plan for the Washington Park Arboretum. Approximately 230 acres in area, the Washington Park Arboretum is located within the City of Seattle, both east and west of Lake Washington Boulevard East, between the Washington Park playfield and East Madison Street on the south, and Union Bay and State Route 520 on the north.

This environmental impact statement (EIS) evaluates the physical aspects of the Arboretum and Botanical Garden Committee's currently preferred alternative, referred to as the Arboretum and Botanical Garden Committee's proposed master plan. This master plan is the product of a design and review process that has taken several years, and reflects changes made in response to concerns raised after publication of the draft EIS. Key elements of the proposed master plan include the following:

- Renovation and expansion of existing facilities and construction of new facilities in the vicinity of the Graham Visitors Center, including additional parking
- Consolidation of parking at the north end of the Washington Park Arboretum closer to Graham Visitors Center
- Elimination of most of the small parking areas on Arboretum Drive East, and construction of new larger lots at each end
- Construction of a new combined educational and visitors services facility, at the south end of the Washington Park Arboretum near the Japanese garden, and expansion of the parking lot in that area
- Construction of a new pavilion and an entrance facility at the Japanese garden
- Renovation of 30 existing plant exhibits and creation of 21 new plant exhibits
- Reorientation of pedestrian trails
- Construction of a pedestrian/bicycle trail along Lake Washington Boulevard East

- Construction of two pedestrian overpasses, one over Lake Washington Boulevard East at the south end of the Washington Park Arboretum and one over Foster Island Road East at the north end of the park
- Relocation of the northern one-third of Arboretum Drive eastward
- Realignment of the north entry and the intersections of Lake Washington Boulevard East with Foster Island Road East, and with the on/off-ramps of State Route 520
- Creation of a four-way intersection between Lake Washington Boulevard East, Arboretum Drive East, and a new entrance to the parking area south of the Japanese garden
- Construction of four outdoor educational shelters
- Other modifications and minor construction.

This EIS also evaluates approximately 30 alternative plan elements for specific facilities and actions included in the proposed plan and also evaluates the no-action alternative.

Proponent

Arboretum and Botanical Garden Committee

Date of Implementation

Seattle City Council action on the proposed master plan is expected early in 2001. The timing of implementation of the approved plan would depend on the availability of funding.

Responsible Official and Lead Agency

Kenneth R. Bounds, Superintendent Seattle Department of Parks and Recreation

Contact Person

Peter Marshall, Park Planner Seattle Department of Parks and Recreation 800 Maynard Avenue South Seattle, Washington 98134 (206) 684-7048

Required Permits and Approvals

Implementation of any of the alternatives other than the no-action alternative requires approval of the Seattle City Council. Depending on the council's decision on the master plan, one or more of the following permits may be required:

City of Seattle

Shoreline substantial development permit Shoreline conditional use permit Building and grading permit

Washington Department of Fish and Wildlife Hydraulic project approval

EIS Authors

Herrera Environmental Consultants

Document production

Geology and soils

Air quality

Water resources

Plants and animals

Energy and natural resources

Noise

Land and shoreline use

Recreation

Historic and cultural resources

Aesthetics

Public services and utilities

KJS Associates

Transportation

The Portico Group

Visual renderings

Master plan description

Date of Publication of Final EIS

January 4, 2001

Date of Final Action

Seattle City Council approval of a Washington Park Arboretum master plan is expected in early 2001.

Subsequent Environmental Review

No subsequent environmental review is anticipated prior to selection of an alternative for adoption and implementation. However, as implementation occurs, several individual projects would require master use permits that would include substantive State Environmental Policy Act (SEPA) decisions and other approvals from the Seattle Department of Design, Construction, and Land Use (DCLU). The table below shows several key aspects of the proposal and alternatives that would require master use permits with SEPA review because of the scale of development as it is outlined in the EIS.

Program Element	Master Use Permit Required with SEPA Review
Roadway reconfigurations (all)	No (see note below)
New pedestrian overpasses	No
New dual-use pedestrian & bicycle path	No
Arboretum Drive parking reconfiguration	Yes
Removal of Wilcox bridge parking	Yes
Added parking at Japanese garden	Yes
Graham Visitors Center – parking expansion	Yes
Woodland meadow – new parking	No
Removal of Foster Island Road parking	Yes
New Madrona Terrace parking	Yes
New south education & visitor services building	Yes
Graham Visitors Center – New curation building	Yes
Graham Visitors Center – New education building	Yes
Graham Visitors Center – Replacement of greenhouses & lath houses	Yes
New operations and maintenance buildings (2)	No
New open storage structures	No
New Japanese garden pavilion	No
New Japanese garden entrance building	No
New outdoor shelters	No

Roadway and path construction in parks does not generally require a master use permit, but in some cases, project-level environmental (SEPA) review could be required. Projects that require less than 500 cubic yards of grading would be exempt from SEPA review. Certain other exemptions apply to road projects, but the projects in this plan generally do not qualify for those exemptions.

In addition, development within environmentally critical areas or over water would require additional SEPA review in most cases. Shoreline permits would also be required for substantial development within 200 feet of Lake Washington.

As implementation occurs, Seattle Department of Parks and Recreation, as lead agency in consultation with DCLU, would evaluate this EIS and conduct additional environmental review, if necessary.

Location of EIS Background Data

Background information for this EIS is available for review at the office of the Seattle Department of Parks and Recreation (see address of contact person above).

Cost to the Public for Copy of Draft EIS

Additional copies may be obtained at a cost of \$20 per copy by contacting Laurel Mercury, Seattle Department of Parks and Recreation, 800 Maynard Avenue South, Third floor, Seattle, Washington 98134 (telephone 206/684-7055).

In addition, the document can be reviewed at the following internet address under What's New: www.cityofseattle.net/parks

Contents

Fact Sheet	i
Part 1—Summary	
Purpose and Need for Proposed Action	1
Project Purpose and Need	
Project Alternatives	5
Summary of Environmental Impacts	9
Earth	
Air Quality	
Water Resources	
Plants and Animals	10
Energy and Natural Resources	10
Noise	10
Land and Shoreline Use	11
Recreation	
Historic and Cultural Resources	
Aesthetics	
Transportation	
Public Services and Utilities	
Major Conclusions, Areas of Controversy, and Issues to Be Resolved	15
Part 2—Description of the Proposal and Alternatives	
Project Purpose, Need, and Objectives	19
Project Purpose and Need	19
Proponent's Objectives	
Historical Background.	
Roles in Ownership and Management of the Washington Park Arboretum	25
Roles in Preparation of the Environmental Impact Statement	
Description of Alternatives	29
Revisions to the Proposal Since the Draft EIS	29
Proposed Master Plan (Preferred Alternative)	
Alternatives to the Proposed Master Plan	
No Action	
Phasing of Master Plan Implementation	
Comparison of Environmental Impacts of the Alternatives	53

Benefits and Disadvantages of Delayed Implementation of the Proposal	59
Part 3—Affected Environment, Impacts, and Mitigation Measures	
Geology and Soils	61
Affected Environment	61
Environmental Impacts	
Mitigation Measures	
Significant Unavoidable Adverse Impacts	69
Air Quality	71
Affected Environment	71
Environmental Impacts	
Mitigation Measures	
Significant Unavoidable Adverse Impacts	79
Water Resources	81
Affected Environment	
Environmental Impacts	
Mitigation Measures	
Significant Unavoidable Adverse Impacts	97
Plants and Animals	99
Affected Environment	99
Environmental Impacts	114
Mitigation Measures	118
Significant Unavoidable Adverse Impacts	119
Energy and Natural Resources	121
Affected Environment	121
Environmental Impacts	
Mitigation Measures	
Significant Unavoidable Adverse Impacts	123
Noise	125
Affected Environment	125
Environmental Impacts	128
Mitigation Measures	
Significant Unavoidable Adverse Impacts	134
Land and Shoreline Use	135
Affected Environment	135
Environmental Impacts	141
Mitigation Measures	
Significant Unavoidable Adverse Impacts	146
Recreation	147
Affected Environment	147
Environmental Impacts	148

Mitigatio	n Measures	155
Significa	nt Unavoidable Adverse Impacts	155
Historic and	Cultural Resources	157
Affected	Environment	157
Environn	nental Impacts	171
Mitigatio	n Measures	184
Significa	nt Unavoidable Adverse Impacts	186
Aesthetics		187
Affected	Environment	187
Environn	nental Impacts	189
Mitigatio	n Measures	211
Significa	nt Unavoidable Adverse Impacts	211
Transportatio	n	215
Affected	Environment	215
Environn	nental Impacts	224
Mitigatio	n Measures	232
Significa	nt Unavoidable Adverse Impacts	233
Public Servic	es and Utilities	235
Affected	Environment	235
Environn	nental Impacts	241
Mitigatio	n Measures	245
Significa	nt Unavoidable Adverse Impacts	246
Part 4—Con	nments and Responses	
Agency (Comments and Responses	247
~ .	all and Community Organization Comments and Responses	
	earing Comments and Responses	
Part 5—Refe	erence and Distribution Lists	
References ar	nd Information Sources	393
Distribution I	ist	401
Appendix A	Renewing the Washington Park Arboretum—	
rippelidix A	A Proposal by the Arboretum and Botanical Garden Committee	
Appendix B	Fish and Wildlife Habitat Data	
Appendix C	Transportation Impact Analysis	
Appendix D	Educational Programming at Washington Park Arboretum	

Tables

Table 1.	Comparison of alternatives for Washington Park Arboretum master plan elements.	6
Table 2.	Comparison of existing parking capacity with currently proposed parking capacity for the Washington Park Arboretum.	39
Table 3.	Comparison of environmental impacts of the alternatives.	55
Table 4.	Federal, state, and Puget Sound ambient air quality standards	73
Table 5.	Storm flow monitoring data from Arboretum Creek, November 1999	87
Table 6.	City of Seattle maximum permissible sound levels (dBA).	126
Table 7.	Graham Visitors Center usage by groups during fiscal 1998–1999.	149
Table 8.	Historic features of the Washington Park Arboretum and their condition as observed in November 1999.	163
Table 9.	No-action alternative, 2005 evening peak hour intersection levels of service	227
Table 10.	Dispatched calls to Washington Park Arboretum, January 1 to November 20, 1998.	238

Figures

Figure 1.	Existing features in the Washington Park Arboretum	31
Figure 2.	Existing pedestrian and bicycle paths in the Washington Park Arboretum	33
Figure 3.	Major elements of the master plan proposal for the Washington Park Arboretum	35
Figure 4.	Proposed plan for Graham Visitors Center and vicinity	41
Figure 5.	Proposed plan for south-end gateway educational facility, reconfigured parking lot, and Japanese garden entrance	42
Figure 6.	Soils map for Washington Park Arboretum	62
Figure 7.	Water resources in the vicinity of the Washington Park Arboretum	82
Figure 8.	Plant community types in the Washington Park Arboretum	101
Figure 9.	Wetland locations within the Washington Park Arboretum	104
Figure 10.	1936 Olmsted Brothers General Plan for the University of Washington Arboretum	161
Figure 11.	Areas within the Washington Park Arboretum from which structures, roads, or parking lots currently are visible	193
Figure 12.	Areas within the Washington Park Arboretum from which structures, roads, or parking lots would be visible under the proposed master plan	195
Figure 13.	Locations of selected photographic viewpoints in the Washington Park Arboretum	197
Figure 14.	Existing scene at viewpoint #1, looking north along Arboretum Drive East at Graham Visitors Center in the Washington Park Arboretum, compared with photographic simulation of proposed expansion of Graham Visitors Center from the same viewpoint	198
Figure 15.	Existing scene at viewpoint #2, looking south along Arboretum Drive East at Graham Visitors Center in the Washington Park Arboretum, compared with photographic simulation of proposed expansion of Graham Visitors Center from the same viewpoint	199
Figure 16.	Existing scene at viewpoint #4, looking northwest toward Japanese garden entrance and Lake Washington Boulevard East in the Washington Park Arboretum, compared with photographic simulation of proposed Japanese garden entrance from the same viewpoint	202
Figure 17.	Existing scene at viewpoint #5, looking southwest toward entrance to Japanese garden/Washington Park playfield parking lot in the Washington Park Arboretum	204

Figure 18.	Photographic simulation of scene at viewpoint #5, looking southwest toward the educational gateway facility proposed to be located south of Japanese garden in the Washington Park Arboretum (compare with existing scene in Figure 17)	205
Figure 19.	Existing scene at viewpoint #3, looking southwest across Arboretum Drive East at the Madrona Terrace site in the Washington Park Arboretum	212
Figure 20.	Photographic simulation of scene at viewpoint #3, looking southwest at Madrona Terrace alternative educational gateway facility in the Washington Park Arboretum (compare with existing scene in Figure 19)	213
Figure 21.	Cross-section A–A' through Madrona Terrace area and Japanese garden in the Washington Park Arboretum (see Figure 13)	214